IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A separator-electrode unit capable of functioning in a lithium battery as a separator-electrode unit, the unit comprising a porous electrode and a separator layer applied to said porous electrode, wherein the separator-electrode unit comprises an inorganic separator layer which comprises at least two fractions of metal oxide particles which differ from each other in their average particle size and/or in the metal, the separator layer comprising metal oxide particles having an average particle size (D_g) which is greater than the average pore size (d) of the pores of the porous electrode that are adhered together by metal oxide particles having [[a]] an average particle size (D_k) which is smaller than the pores of the porous ~~positive~~ electrode.

Claim 2 (Previously Presented): A separator-electrode unit according to claim 1, wherein the separator layer has a thickness (z) which is less than 100 D_g and not less than 1.5 D_g.

Claim 3 (Previously Presented): A separator-electrode unit according to claim 1, wherein the separator layer has a thickness (z) which is less than 20 D_g and not less than 5 D_g.

Claim 4 (Currently Amended): A separator-electrode unit according to claim 1, wherein the metal oxide particles having an average particle size (D_g) which is greater than the average pore size (d) of the pores of the porous ~~positive~~ electrode are Al_2O_3 and/or ZrO_2 particles.

Claim 5 (Currently Amended): A separator-electrode unit according to claim 1, wherein the metal oxide particles having an average particle size (D_k) which is smaller than the average pore size (d) of the pores of the porous ~~positive~~ electrode are SiO_2 and/or ZrO_2 particles.

Claim 6 (Currently Amended): A separator-electrode unit according to claim 1, wherein the metal oxide particles having an average particle size (D_g) which is greater than the average pore size (d) of the pores of the porous ~~positive~~ electrode have an average particle size (D_g) of less than 10 μm.

Claim 7 (Previously Presented): A separator-electrode unit according to claim 1, wherein the separator layer comprises a coating with shutdown particles which melt at a desired shutdown temperature.

Claim 8 (Previously Presented): A separator-electrode unit according to claim 7, wherein the shutdown particles have an average particle size (D_w) which is not less than the average pore size (d_s) of the pores of the porous separator layer.

Claim 9 (Previously Presented): A separator-electrode unit according to claim 7, wherein the shutdown particle layer has a thickness (z_w) which ranges from about equal to the average particle size of the shutdown particles (D_w) up to 10 D_w.

Claim 10 (Previously Presented): A separator-electrode unit according to claim 1, wherein the separator layer has a porosity of from 30 to 70%.

Claim 11 (Previously Presented): A separator-electrode unit according to claim 1, wherein the unit is bendable down to a radius of 50 cm without damage.

Claim 12 (Previously Presented): A separator-electrode unit according to claim 1, wherein the electrode is an electrode which is capable of functioning as a positive electrode (cathode) or as a negative electrode (anode).

Claim 13 (Withdrawn - Currently Amended): A process for producing a separator-electrode unit according to claim 1, said process comprising forming a porous inorganic coating separator layer on a porous electrode substrate capable of functioning as a positive (cathode) or negative (anode) electrode in a lithium battery by applying a suspension which comprises metal oxide particles in a sol and solidifying the inorganic separator layer on the electrode by at least one thermal treatment, the suspension comprising metal oxide particles having an average particle size (D_g) which is greater than the average pore size (d) of the pores of the porous ~~positive~~ electrode.

Claim 14 (Withdrawn - Currently Amended): A process according to claim 13, wherein the metal oxide particles or the metal oxide particles having an average particle size (D_g) which is greater than the average pore size (d) of the pores of the porous ~~positive~~ electrode are Al_2O_3 and/or ZrO_2 particles.

Claim 15 (Withdrawn): A process according to claim 13, wherein the metal oxide particles have an average particle size of less than 3 μm.

Claim 16 (Withdrawn): A process according to claim 13, wherein the suspension is applied to the substrate by printing on, pressing on, pressing in, rolling on, knifecoating on, brushing on, dipping, spraying or pouring on.

Claim 17 (Withdrawn): A process according to claim 13, wherein the suspension has a weight ratio of metal oxide particles to sol in the range from 1:1000 to 2:1.

Claim 18 (Withdrawn): A process according to claim 13, wherein the suspension comprises at least one sol of the elements Al, Zr or Si or a mixture of said sols and is produced by suspending the metal oxide particles in at least one of said sols.

Claim 19 (Withdrawn): A process according to claim 18, wherein the sols are particulate sols.

Claim 20 (Withdrawn): A process according to claim 18, wherein the sols are polymeric sols.

Claim 21 (Withdrawn): A process according to claim 18, wherein the sols are obtained by hydrolyzing at least one alkoxide compound of the elements Al, Zr or Si with water or an acid or a combination of said compounds.

Claim 22 (Withdrawn): A process according to claim 13, wherein the suspension further comprises pyrogenic silica to adjust the viscosity of the suspension.

Claim 23 (Withdrawn): A process according to claim 22, wherein the silica mass fraction of the suspension is in the range from 0.1 to 10% by weight.

Claim 24 (Withdrawn): A process according to claim 13, wherein the suspension applied to the electrode is solidified by heating to 50-500°C.

Claim 25 (Withdrawn): A process according to claim 24, wherein the heating is effected at a temperature of from 200 to 280°C for from 0.5 to 10 minutes.

Claim 26 (Withdrawn): A process according to claim 13, wherein the solidifying of the suspension applied to the electrode is followed by the application to the separator-electrode unit of a layer of shutdown particles which melt at a desired shutdown temperature to create a shutdown mechanism.

Claim 27 (Withdrawn): A process according to claim 26, wherein the layer of shutdown particles is formed by applying a suspension of shutdown particles having an average particle size which is greater than the average pore size of the separator layer in a sol, water, solvent or solvent mixture.

Claim 28 (Withdrawn): A process according to claim 27, wherein the suspension of shutdown particles further comprises an adhesion promoter.

Claim 29 (Canceled).

Claim 30 (Currently Amended): A lithium battery comprising said separator-electrode unit according to claim 1.

Claim 31 (Previously Presented): A method for making a lithium battery, said method comprising:

incorporating said separator-electrode unit according to claim 1 in a battery comprising lithium to obtain said lithium battery.